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APPLICATION FOR LETTERS PATENT

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Title : TRADING METHOD TO ACCOMMODATE TWO TRADING CHANNELS

4 Claims

5 Sheets of Drawings

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# 1      **TRADING METHOD TO ACCOMMODATE TWO TRADING CHANNELS**

## 2      BACKGROUND OF THE INVENTION

### 3      1. Field of the Invention

4            The present invention is a trading method used to accommodate two trading  
5 channels, and more particularly to a method that is used to make reservations on a web  
6 trading channel and through a real-world trading channel such as a manned reception  
7 desk, ticket counter, etc.

### 8      2. Description of Related Art

9            With the continuing development of E-Commerce, most companies and stores  
10 want to attract a large number of customers to buy their goods or services from their web  
11 sites. Recently, many service companies have begun to offer customers a quick way of  
12 making reservations or ordering tickets, so that a portion of the web sites are configured  
13 to be virtual counters to service customers by ordering tickets or making reservations.

14           With reference to Fig. 5, in general, a web site with an ordering process is setup  
15 on a database server (50) to store the ordering information and send resident information  
16 back to the terminal (not shown) in the services companies. Customers are able to use a  
17 terminal (60) to connect to the web site via the web server (51), and the web site can also  
18 send messages to customers via the mail server (52). The customer executes the  
19 ordering process in the web site and inputs the ordering information including the date,  
20 the number of people, the number of reservations (such as seats, tables or rooms), etc. to  
21 the web site, where the information is stored in the database server (50) and is sent to  
22 terminals of the service companies. The employees in the service companies check  
23 availability information on the database server (50) after receiving the ordering  
24 information. If the ordered service is available, a successful trade or confirmation

1 message is sent to the customer via the mail server (52) at the e-mail address provided  
2 by the customer or by fax (53).

3           However, most service companies, such as hotels, KTVs, theaters, etc. have a  
4 fixed allotment of their services available on the web site for customers to order. A  
5 complementary fixed allotment is distributed to a real-world service channel. However,  
6 that distribution of the allotment between two trading channels, such as the web site and  
7 a service center does not balance with the demand at the individual sites. For example,  
8 when a crowd of customers suddenly shows up at one of the trading centers, the  
9 allotment of reservations for the trading center is not adequate to fill the customers  
10 orders. On the other hand, the other trading channel still has a surplus that may go  
11 unsold. That is, the allotments to the two trading channels are fixed, and the trading  
12 channel with the surplus cannot offer the surplus to the other trading channel that needs  
13 an additional allocation to meet customer demand.

14           As described above, customers can complete the reservation and ordering  
15 process in a short time when they make the transactions on line. However, companies  
16 spend so much money to design their web sites to attract more customers that the  
17 economic benefits are not obvious.

18           Therefore, an objective of the invention is to provide a trading method between  
19 two trading channels to mitigate and/or obviate the aforementioned problems.

## 20 SUMMARY OF THE INVENTION

21           The main objective of the present invention is to provide a trading method to  
22 accommodate two trading channels that has a dynamic distribution step between a web  
23 trading channel and a real-world trading channel. After each trading channel completes  
24 an ordering process, the dynamic distribution step is executed to balance the two

1 allotments and update the two allotments in the two trading channels.

2 Other objects, advantages and novel features of the invention will become more  
3 apparent from the following detailed description when taken in conjunction with the  
4 accompanying drawings.

#### 5 BRIEF DESCRIPTION OF THE DRAWINGS

6 Fig. 1 is a flow chart of a trading method to accommodate two trading channels  
7 in accordance with the present invention;

8 Fig. 2 is block diagram of a web hardware structure including a terminal and a  
9 database server to implement the trading method in Fig. 1;

10 Fig. 3 is a partial flow chart of the method in accordance with the present  
11 invention;

12 Fig. 4 is the other partial flow chart of a method in accordance with the present  
13 invention; and

14 Fig. 5 is block diagram of a web hardware structure in accordance with  
15 conventional on-line ordering process.

#### 16 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

17 With reference to Fig. 1, a service trading company includes a first trading  
18 channel to receive web ordering information and a second trading channel where real-  
19 world ordering information is received such as a reception counter, ticket booth, etc.  
20 Each trading channel has an allotment from which customer orders are filled. The  
21 method comprises the following steps:

22 executing an ordering process in one of the two trading channels, wherein each  
23 trading channel has an allotment of allocable units such as tickets, reservations, etc.  
24 from which customer orders are filled. When the customers execute orders, the number

1 of allocable units ordered must be input into the channel, either to the web site through  
2 the customer terminal or into the computer at the real-world site by the service personnel.  
3 Besides, if the ordered service is available, a successful trade or confirmation message is  
4 sent to the customer.

5 obtaining the ordering information from the trading channel that executed the  
6 ordering process, wherein the information includes the surplus of the trading channel  
7 and the number of allocable units the customers ordered;

8 obtaining the present surplus of the allocable units from the other trading  
9 channel;

10 recalculating the two allotments of allocable units in the two trading channels,  
11 that is the two surpluses of the two trading channels are used to recalculate new  
12 allotments for each channel according to a specified ratio;

13 detecting whether another ordering process has been executed in the two trading  
14 channels, that is, if another customer placed an order during the above processing steps,  
15 the surplus at that channel has changed so that the next step is to return to the second step;  
16 and

17 updating the two new allotments from the fourth step in the two trading  
18 channels.

19 With reference to Fig.2, an Internet hardware structure between a customer and  
20 a web site comprises a database server (10), a web server (11), a mail server (12) and a  
21 terminal (20). The database server (10) stores the ordering related information about the  
22 web site. The web server (11) is connected to the database server (10). The mail server  
23 (12) of the Internet is connected to the database server (10). The terminal (20) is  
24 connected to the web server (11) for entering the web site. The customer is able to enter

1 the web site via the terminal (20) and places the order on the web site. The database  
2 server (10) connects to a computer (not shown) in the real-world trading channel to  
3 transmit the trading information to each other. An operating system is setup in the  
4 computer to manage the ordering process at the real-world trading channel.

5 With reference to Fig. 3, when placing an order through the web channel, a  
6 customer enters the ordering information on the web site, and the web site ensures that  
7 the ordering process is successful. The database server stores the ordering information  
8 immediately. The database server sends this information including the allocable units  
9 ordered and the surplus of the web site to the computer at the real-world channel.

10 Thereafter the computer obtains the present surplus stored in the operating system in the  
11 real-world site, and the two surpluses are recalculated to a new first allotment and a new  
12 second allotment depending on the specified ratio. The computer connects to the web  
13 site again to check whether the latest surplus on the web site is equal to the present  
14 surplus in the computer. If the two surpluses are not equal, another ordering process has  
15 already been executed through the web channel during the above steps running.

16 Therefore, the follow-up steps do not run, and process returns to run the first step. If the  
17 two surpluses are equal, the computer sends the new first allotment to update the present  
18 allotment on the web site and sends the new second allotment to update the present  
19 allotment on the operating system in the real-world site. That is the new second  
20 allotment replaces the present allotment stored in the operating system. Therefore  
21 customers are able to watch the latest allotment of allocable units and decide how many  
22 allocable units to order. The real-world channel also controls the latest allotment of  
23 allocable units to offer the customers. That is to say, whatever a crowd of people show  
24 up on the Internet trading channel or at the real-world trading channel, the two trading

1 channels always adjust the allotments and show them on Internet.

2 With reference to Fig. 4, when placing an order at the real-world site through the  
3 real-world channel, a customer places the order by entering the ordering information  
4 into the computer at the real-world channel. Thereafter the computer obtains the present  
5 surplus of allocable units stored in the database server, two surpluses of seats are  
6 recalculated depending on the specified ratio to a new first allotment and a new second  
7 allotment. The computer connects to the web site again to check whether the present  
8 surplus of allocable units on the database server is equal to the last surplus sent to the  
9 computer. If the two surpluses are not equal, the ordering process of the web site has  
10 already been executed during the above steps. Therefore, the follow-up steps do not run,  
11 and the process returns to run the first steps. If the two surpluses are equal, the computer  
12 sends the new first allotment to update the present allotment on the web site and sends  
13 the new second allotment to update the present allotment on the operating system in the  
14 real-world site. That is the new second allotment replaces the present allotment stored in  
15 the operating system. Therefore the customers are able to watch the latest allotment of  
16 allocable units and decide how many allocable units to order. The counter also controls  
17 the latest allotment of allocable units to offer the customers. That is to say, whatever a  
18 crowd of people show up on the Internet trading channel or in the real-world trading  
19 channel, the two trading channels always adjust the allotments and show them on the  
20 Internet.

21 As per the above description, every time the ordering process is executed in the  
22 Internet trading channel or the real world trading channel, the two allotments of  
23 allocable units are redistributed again to balance the relationship between the two  
24 trading channels. That is to say, whatever a crowd of customers suddenly shows up on

1 the Internet trading channel or at the real world trading channel, the two trading  
2 channels always adjust the best allotments to fill the customers orders.

3 It is to be understood, however, that even though numerous characteristics and  
4 advantages of the present invention have been set forth in the foregoing description,  
5 together with details of the structure and function of the invention, the disclosure is  
6 illustrative only, and changes may be made in detail, especially in matters of shape, size,  
7 and arrangement of parts within the principles of the invention to the full extent  
8 indicated by the broad general meaning of the terms in which the appended claims are  
9 expressed.